

APPENDIX C

PREHISTORIC CONTEXT

(FROM PETERSON 2003)

Temporal /Cultural Framework

Paleoindian Tradition

The earliest occupations in North Dakota are associated with the Paleoindian tradition; a time associated with the retreat of the glacial ice masses. This tradition is believed to have occurred from 12,000 to 7,500 years ago (SHSND-AHP 1990). Culturally, the tradition is characterized by a series of related technological complexes distinguished by the use of high quality cryptocrystalline raw materials for the production of sophisticated tool kits geared toward the exploitation of large game. Low population density and high residential mobility are other hallmarks of the Paleoindian tradition.

Paleoindian sites are extremely rare in North Dakota. In the Knife River study unit, extensive investigations have been conducted at Lake Ilo that exhibited a number of Folsom components. No intact Paleoindian components have yet been identified in the Coteau Mining Region.

Archaic Tradition

Compared to the preceding Paleoindian tradition, far more information is known about Archaic occupations in the Coteau Mining Region. The Archaic tradition occurred from 7,500 BP to roughly 2,400 BP (SHSND-AHP 1990). A general climatic warming trend, known as the Altithermal, was ushered in during this tradition. As a result of the warming trend, increased periods of drought occurred, leading to the demise of numerous animal resources utilized during the previous Paleoindian tradition. The Middle and Late Archaic witnessed alternating episodes of normal dry and wet conditions, though all were less severe than during the preceding Altithermal.

Three medium to large unnotched, parallel obliquely flaked bifaces were found below Ring 143 at the Bees Nest site (32ME175) [Peterson and Peterson 1995]. Two nearby hearth/roasting pits suggest these artifacts are associated with an occupation that occurred 5,350 years ago. The pits are interesting, not only because they are some of the oldest features in the Coteau Mining Region, but also because no other features like these have been found. They are relatively large (2 ft diameter by 1.5 ft deep) and contain fire-cracked rock and exhibit oxidation along their edges. They are somewhat reminiscent of early plant processing features found at sites in the Great Basin, though uncommon on the

glaciated northern plains. A pollen analysis of the fill did not provide information regarding their purpose.

Another Early Archaic component was identified at 32ME254 by the presence of Oxbow projectile points (Winzler et al. 1998). This was the earliest dated component identified at the site and was represented by Oxbow projectile points found beneath Ring 87. Two other Oxbow points (in addition to McKean and Besant projectile points) also were recovered below Ring 79; suggesting 32ME254 was occupied multiple times. No dateable features or bone were found in association with these projectiles. Dates for the occurrence of Oxbow in North Dakota range between 5300-4500 BP; however, the North Dakota State Plan (SHSND-AHP 1990) suggests that Oxbow style projectiles may be more recent in age. To explore this possibility, the North Dakota State Plan places an emphasis upon identifying intact Oxbow deposits that can be dated later than 4500 BP (SHSND-AHP 1990:3.30)

An Oxbow-style point was identified at 32ME185 (Boughton et al. 1999) in the West Mine Area. The site is situated within a plowed field, however, a small number of artifacts were observed below the plow zone, suggesting more intact deposits might exist.

Middle Archaic

Unlike the isolated examples of early Archaic occupations, Middle Archaic occupations are relatively common. Middle Archaic components are often represented by McKean, Duncan or Hanna projectile points. Their occurrence in North Dakota date from 4500-3000 BP (SHSND-AHP 1990).

The earliest use of the tipi representing upland plains living is believed to have occurred during the middle Archaic and likely during the McKean complex (Frison 1978:51; Reeves 1970). It is, therefore, not surprising that we find McKean complex projectiles in stone ring features. Indeed, McKean components have been identified at almost all of the larger ring sites that have been investigated in the Coteau Mining Region. These include the Onion Ring site (32ME166) [Deaver et al. 1989], the Bees Nest site (32ME254) [Peterson and Peterson 1995] and site 32ME254 (Winzler et al. 1998). At the Onion Ring site, a single Duncan point was recovered from a cairn feature; little was learned about this occupation at the site other than it appears to predate all the ring occupations. Two Hanna type points were recovered from the excavations at Ring 15-West at the Bees Nest site, indi-

cating the ring was occupied during this complex. At 32ME254, two McKean points and one Duncan point were recovered from Feature 64, a McKean point was recovered from Feature 79, and a Hanna-like point was recovered from Feature 57. Testing recovered McKean complex projectiles from five sites in the West Mine Area. Three were recovered from cairns (Feature 3C at 32ME144, Feature 1C at 32ME206 and Feature 9C at 32ME1589) and two from lithic scatters (32ME1508 and 32ME1548). Both of the lithic scatters are found within plowed fields.

Late Archaic

Surprisingly, Pelican Lake projectile points are relatively rare in the Coteau Mining Region. Although they occur, they are present in very small numbers and are usually found mixed with Besant projectiles. Variation associated with different projectile point styles has traditionally been viewed as being temporally significant or diagnostic. However, a review of Besant sites in Montana and the Dakotas suggests some of the variation may be related to other factors, such as projectile recycling, especially retooling (S. Deaver 1997). Pelican Lake components representing the Late Archaic tradition in the Coteau Mining Region were identified at the Bees Nest site and site 32ME254. At the Bees Nest site, this projectile point style was identified at Ring 5. At 32ME254, a single possible Pelican Lake point came from Feature 57. Pelican Lake components are believed to date between 3500 and 1700 BP (Gregg 1985). The only Pelican Lake projectiles found within the West Mine Area are from sites 32ME185 and 32ME1548. Both sites have been repeatedly plowed and contain diagnostics other than Pelican Lake.

Plains Woodland/Late Prehistoric Tradition

The Plains Woodland tradition is characterized by the appearance of pottery in the archaeological record and burial mound construction. An increase in the specialization of upland living and the utilization of open prairie resources continued from the preceding period. Toward the end of this tradition, the bow and arrow replaced the atlatl, dart and spear as the preferred weapon, which resulted in a more efficient exploitation of game. The presence of pottery in Woodland sites has led to many debates concerning the significance of Eastern Plains influences on Northwestern Plains peoples.

Besant-Sonota

The majority of features previously examined in the Coteau Mining Region are associated with the Besant complex of the Plains Woodland tradition/Late Prehistoric period (Deaver and Brownell 1992). Previously, Besant has been reported to occur from 2000-1100 BP on the Northern Plains (Gregg 1985:118). Deaver and Deaver (1987:29) argue that

the Besant complex continued for a greater period of time in North Dakota, with transitional levels containing both Pelican Lake and Besant beginning around 2,300 years ago and continuing until 800 years ago. Investigations at the Bees Nest site (Peterson and Peterson 1995) pushes the onset of Besant in the Coteau Mining Region even earlier, with four radiocarbon dates associated with Besant projectiles that have an intercept date of circa 3,000 years ago (see Table 2.1). The Besant complex also appears to last longer in central North Dakota than in many regions of the plains. This finding presents the intriguing possibility that central North Dakota may have been the home territory for Besant populations. This finding also is supported by the dominance of Knife River flint within most Besant archaeological components dating to these times (Gregg 1985).

At the Onion Ring site, four ring features and one cairn are associated with this complex. Besant projectile points were recovered from three of the rings, while a hearth dating to approximately 1950 BP and two Besant fragments were identified in the fourth (Deaver et al. 1989). Two ring features at 32ME220 yielded Besant projectile points (Deaver 1990). A number of rings, including 10-West, 14-West, 37, 52, 53, 54 and 56 at the Bees Nest site have been interpreted to be Besant occupations based on the recovery of this type of projectile point and associated radiocarbon dates (Peterson and Peterson 1995). Of the eight ring features excavated at 32ME254, seven are believed to be associated with this complex (Winzler et al. 1998).

In the West Mine Area, 32ME185 (lithic scatter), 32ME1474 (cairn feature F5C), 32ME1544 (CMS), 32ME1548 (plowed field), 32ME1562 (Feature 25R), 32ME1577 (Feature 23R) and 32ME1580 (Feature 1R) contain Besant-style projectiles. Cord marked and smoothed-over-cord-marked pottery shards that typically mark middle/late Woodland occupations were identified at 32ME232 (Feature 33C), 32ME1323 (Feature 11R), 32ME1513 (Feature 26C) and 32ME1577 (Feature 3R).

Most Besant components are identified by co-occurring Besant-style projectile points. The range of variation observed within Besant projectiles is quite wide. Although a number of archaeologists (Deaver 1997; Hughes 1987) suggest that this is the result of curative tool maintenance associated with hunting and butchering, and that the variation also could reflect subtle stylistic changes in Besant projectile technology through time. If this is true, a greater refinement of the Besant occupations and changes through time can be obtained.

The primary interest of the North Dakota State Plan for the Knife River Study Unit (SHSND-AHP 1990) is in the Sonota complex and how it may relate or be distinguished from the later Plains Village tradition. The Sonota complex is distinguished by the development of burial mound ceremonialism. Sonota sites and Besant sites are virtually indistinguish-

able, except for the presence of burial mounds (Neuman 1975). Sonota is believed to represent a more sedentary adaptation associated with a more “Woodland” lifestyle near river valleys: Besant groups generally lived in upland tipi camps and practiced a mobile, bison hunting adaptation. The presence of mound features at the Boeckel-Renner site (32ME799), in what appears to be an upland Besant stone ring site, could suggest Sonota may not have been as restricted to the river valleys as was once believed. The Boeckel-Renner site is immediately adjacent to the West Mine Area (Artz 1989). In a more generic sense, the North Dakota State Plan (SHSND-AHP 1990) is interested in whether the Woodland tradition co-existed with the Plains Village tradition.

Mortlach

One site, 32ME1578, contains Mortlach pottery. The presence of a Mortlach component in the West Mine Area is noteworthy since other Mortlach sites have not been identified in the Coteau Mining Region. Because Mortlach is not commonly found south of the Missouri River, Dr. Walde, a ceramic specialist at the University of Calgary, came to the Ethnoscience facilities to confirm their cultural affiliation. Mortlach ceramics have been attributed to the Hidatsa (Byrne 1973; Malainey 1991; Wettlaufer and Mayer-Oaks 1960) or to the Gros Ventre (Joyes 1973; Kehoe and Kehoe 1968). However, more recently a strong case has been made for an affiliation between Mortlach ceramics and the Assiniboines (Walde 1994).

Avonlea

Although the Avonlea complex is generally regarded as a western manifestation, we have some evidence of this complex in the Coteau Mining Region. Avonlea projectiles are notable because they are believed to be the first evidence for the bow and arrow in the Northern Plains. Avonlea occurrence in North Dakota is believed to range from 1,500 to 1,000 years ago (SHSND-AHP 1990). It is not generally believed to have obtained a foothold in central North Dakota. The only evidence for Avonlea in the Coteau Mining region occurs within one ring feature at the Bees Nest site (Peterson and Peterson 1995) and a cairn at 32ME1374 (Boughton and Peterson 1994).

Thirty-four point or point fragments recovered from the Northeast portion of Feature 18 represented the Avonlea projectile points at Bees Nest. This area of the ring was identified to be a re-tooling locality. In the southwest portion of the ring, evidence exists for the manufacture of projectile points. The unusual aspect of this knapping station was the presence of Besant projectiles that are believed to have been discarded during manufacture. It is suggested that the Avonlea projectile points were removed and replaced with Besant projectiles that were made within the inhabited tipi.

Therefore, the presence of Avonlea projectiles at this location may actually be associated with a Besant component.

Plains Village Tradition

The most recent prehistoric occupations identified in the Coteau Mining Region tend to be associated with Plains Village occupations. The components are often identified by the presence of small side-notched projectile points, such as Plains side-notch and Prairie side-notch points, ceramics, or earthlodge features.

The Plains Village tradition began around 1,000 years ago and continued until roughly 250 years ago (SHSND-AHP 1990). The period of time associated with the Plains Village tradition is represented at a number of sites in the Coteau Mining Region. Previously investigated sites include Cairn 4 at the Onion Ring site (Deaver et al. 1989), Features 34, 35, 134 and the later occupation identified at the Zone C block excavations at the Bees Nest site (Peterson and Peterson 1995) and Ring 10 at 32ME1403 (Boughton et al. 1996) have been identified as being occupied or used during the Plains Village tradition. In the West Mine Area, 11 sites contain possible Plains Village components. The sites include 32ME205, 32ME232 (Feature 33C), 32ME756 (Feature 16R), 32ME766, 32ME1478 (Feature 5C), 32ME1513 (Feature 1C, Feature 23R), 332ME1524 (Feature 5C), 332ME1548, 32ME1551 (Feature 6D), 32ME1561 (Feature 5R), 32ME1577 (Feature 3, Feature 23R) and 32ME1589 (Feature 9C).

In the West Mine Area, 24 sites yielded diagnostic artifacts. Of these 12 (50 percent) are attributable to Plains Village. In fact, it is the most commonly represented component in the West Mine Area. This is different than the sites examined east of the Beulah trench, which are dominated by Besant components. Why this should occur is unknown.

Equestrian Nomadic Tradition

With the onset of exploration in the Americas, Euro-American populations introduced a variety of goods that were readily adopted by the Plains tribes. The horse and the gun were of particular importance. Unfortunately, communicable diseases were also introduced. The availability of new technologies and disease is believed to have had increasingly severe impacts to the lifestyles of regional tribal populations. Ethnographic accounts suggest the new permit area was extensively exploited; however, little evidence has been found archaeologically. In part, this can be attributed to the short time span (1720-1820s) associated with this tradition.

Currently, the only site that contains evidence of tribal occupations in the region after the introduction of Euro-Americans to North America is at the Bees Nest site. Two cairns and a series of alignments that are associated with the burial

of Raven Chief during the occupation of the Like-A-Fishhook Village represent this period. This site has been identified as a Traditional Cultural Property under Criterion B, because of its association with an important leader of the Hidatsas (Peterson and Peterson 1995).

The proximity of the new permit area to Like-A-Fishhook Village and the presence of a burial at the Bees Nest site suggest the new permit area was occupied during the Protohistoric and Historic periods. No sites associated with the Equestrian Nomadic are identified in the West Mine Area.

Multiple Components

Many of the sites investigated in the Coteau Mining Region exhibit multiple components indicative of repeated occupation. McKean, Plains Village, and Oxbow diagnostics are often found in sites that are dominated by Besant occupations. While diagnostics found in individual stone ring features often are easily separated, separating components within the same stone ring feature is more complicated. This is made especially difficult because of the shallow nature of cultural deposits present in glacial till sediments.

The occurrence of earlier diagnostic artifacts found beneath the ring wall depth has been used to identify separate components at some stone ring features (Peterson and Peterson 1995; Winzler et al. 1998); however, separating the non-diagnostic artifacts (e.g., flaking debris bone) is often problematic. In cases where diagnostics from different components at or above the base of the stone ring wall occurs, it is generally assumed that the later component is associated with the use of the stone ring (Peterson and Peterson 1995; Boughton et al. 1996; Peterson and Peterson 1995; Winzler et al. 1998). Features 1 and 2 at 32ME169, which represents a stone ring feature placed within another stone ring feature, provide an excellent opportunity to determine whether a more fine-grained excavation technique (i.e. excavation in 5 cm levels) is a method of distinguishing between successive occupations.

AMERICAN INDIAN HISTORY (FROM BOUGHTON 1999)

Direct association between prehistoric cultural complexes and known modern Indian populations remains difficult to clearly define. In large part, this shortcoming is due to the fact that investigations of prehistoric sites are largely based upon material culture, while data used to time the movements of the ancestors of modern tribal groups are based on linguistic affiliation.

The earliest sites for which a linguistic affiliation has been ascribed in North Dakota are Plains Village sites. Plains

Villagers are ancestral to both the Mandan and Hidatsa (Gregg and Hanson 1983:54-55). One of the earliest sites for which linguistic affiliation has been ascribed is the Flaming Arrow site, which is located on the Missouri River 20 miles below the Knife and Menoken Village on Apple Creek, east of Bismarck (Ahler et al. 1991). Ahler and others (1991:27-30) suggest this habitation site represents an occupation by ancestral Awatixa (Hidatsa also referred to as Minnetaree) around AD 1100. It is also speculated that early Mandan populations may have also been present in the Missouri area at this time (Ahler et al. 1991:29; Glassner 1974a:72-73).

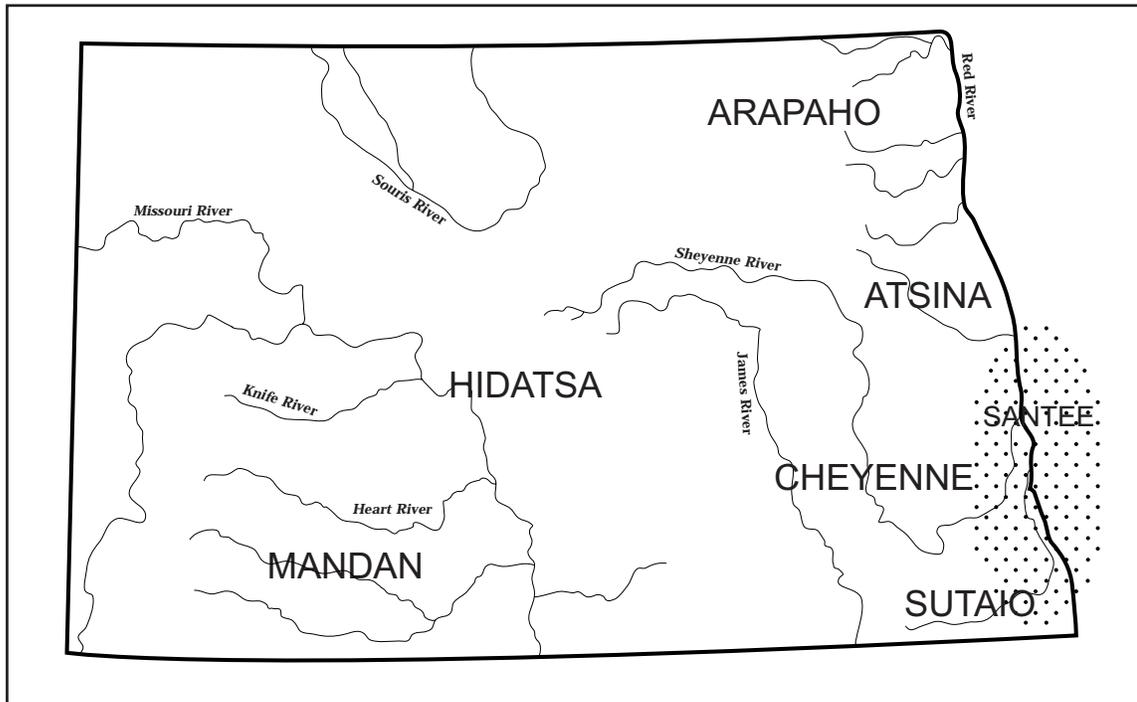
Between AD 1200 and 1450, both ancestral Awatixa and Mandan populations became firmly established in the Knife River region (Ahler et al. 1991:3 1). Around AD 1400, early Mandan began occupying the area south of Square Butte, while the ancestral Awatixa inhabited much of the Missouri up-stream of Square Butte and into eastern Montana, including the Devils Lake area. Populations of both groups are believed to have increased dramatically during this period of time (Ahler et al. 1991:38-39). By the mid 1400s, a few large villages were inhabited below the Knife River, consisting mostly of a few lodges scattered along the terraces adjacent to the river bottoms (Ahler et al. 1991:52). Between AD 1475 and 1525, the community structure began to change. Villages became reduced in number, larger, more densely packed, and eventually fortified (Ahler et al. 1991; Glassner 1974a, 1974b). Archaeological evidence suggests that between AD 1450 and 1600, ancestral Mandan and Awatixa heavily interacted with one another and exchanged many material traits (Ahler et al. 1991:45).

Meanwhile, the Red River valley of the north was occupied by the Cheyenne-Sutaio and Arapaho-Atsina, with the Cheyenne-Sutaio to the south and the Arapaho-Atsina to the north (Hewes 1961:51). Proto-Blackfoot may have also been located in Minnesota or in the Red River valley (c.f., Hewes 1961:54).

AD 1600-1700

Between AD 1600 and 1700, oral traditions, marking specific tribal movements and early written documents, provide a clearer understanding of the movement of populations within North Dakota (Figure C.1). However, increased tribal movements also characterize this period. Under pressure from the northward encroaching Arikara, the Mandan moved out of South Dakota and settled between the Cannonball River and Knife River (Hewes 1961:54). Two waves of Hidatsa moved into the Middle Missouri region. The first was the Awaxawis, who became closely allied with the Mandan. The second wave was the Hidatsa-proper (Minnetarees) (S. Deaver 1986; Voget 1984). As a population, the Hidatsa continued to control the region during this period. Around 1670, a quarrel between No Vitals (leader of the River Crow) and other Hidatsa occurred at Devils

Figure C.1
North Dakota ca. AD 1600



Lake, which eventually lead to a split between the two groups (Voget 1984:4-9).

The Sioux, escaping hostile Chippewa and seeking the abundance of bison on the plains, began pushing westward in the late 1600s from the woodlands of Minnesota. As they moved west, they began to encroach on the territory occupied by the Cheyenne-Sutaio and Arapaho-Atsina in the Red River valley. In response, the Arapaho-Atsina began moving west.

The Assiniboine split from Yanktonai Sioux around 1640 to 1650, starting moving northwesterly and became aligned with the Cree (S. Deaver 1986:24; Hewes 1961:51). The Assiniboine traded corn received from the Mandan and other village tribes of the Missouri, for axes, knives, bullets, and gunpowder from the French and English traders (Rodnick 1938:1).

AD 1700-1780

Between 1700 and 1780, an increasing number of Indian groups moved into North Dakota (Figure C.2). As contact increased, mobility increased and territories became more fluid. During this period of time, ancestral River Crow moved along the Yellowstone in Montana (Voget 1984). The Mandan and remaining Hidatsa occupied villages near the Heart River of North Dakota, but their hunting territory ex-

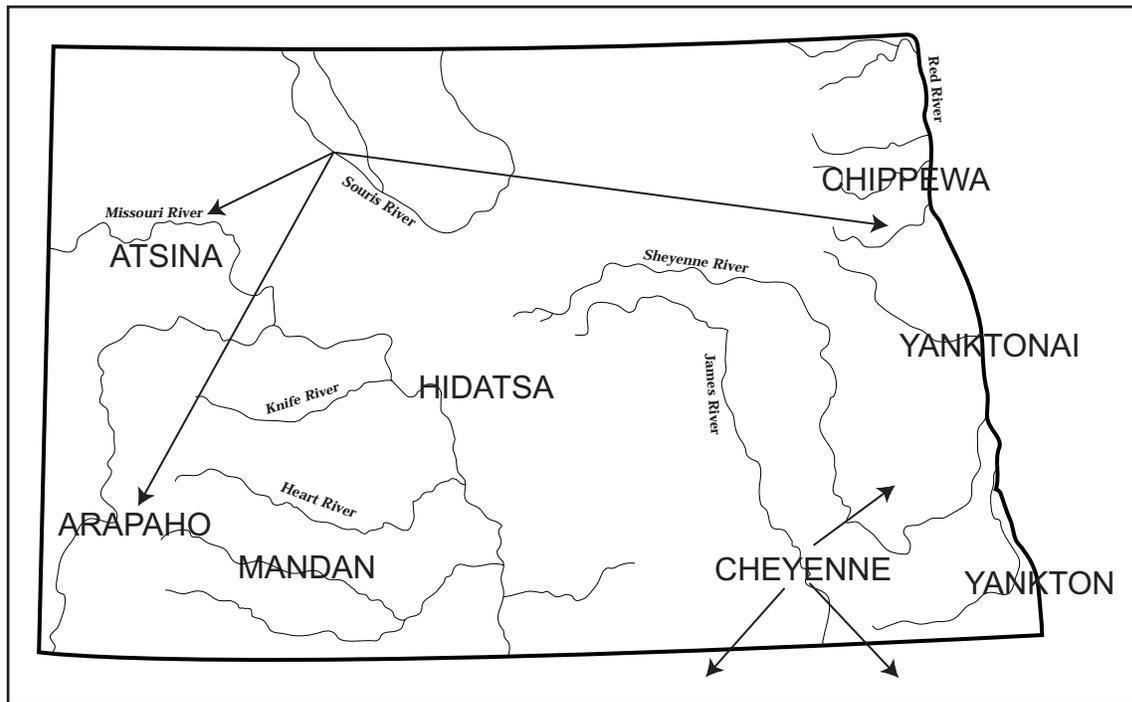
tended far outside the trench. The range of the Hidatsa-proper bands at this point included the Missouri, lower Yellowstone, Little Missouri and Souris rivers, as well as the Turtle Mountains and Devils Lake region (Bowers 1965:26). Hidatsa villages occurred along the northern edge of the Turtle Mountains and on Graham's Island in Devil's Lake (Gregg et al. 1983:56).

The Arapaho and Atsina expanded westward from the Devil's Lake area across the Coteau to the area around the mouth of the Little Missouri River. In the 1720s, the Arapaho and Atsina separated (Hewes 1961:52). The Atsina moved in a northwesterly direction and by 1750 became allied with the Blackfoot. The Arapaho moved in a southwesterly direction and became allied with the Cheyenne.

The Assiniboine and their allies, the Plains Cree, hunted in the valley of the Souris River in the winter and near the Turtle Mountains in the summer. Some bands of the Hidatsa-proper and some Plains Chippewa also utilized this area. The Sioux blocked all groups from crossing the Missouri Coteau.

By 1738, the Chippewa pushed across the Red River valley and began moving toward the Turtle Mountains (Gregg et al. 1983:40-41). Major divisions within the Cheyenne occurred during this time. The majority of the Cheyenne had moved south from the Red River valley; however, some went to the Sheyenne River in North Dakota.

Figure C.2
North Dakota ca AD 1700



The Yankton controlled eastern South Dakota in 1720. By 1740, Yanktonai territory centered in southern North Dakota, east of the Missouri River. Yanktonai earthlodge villages (Drifting Goose, Big Head, and Little Soldier) were settled; however, only five percent of the Yanktonai lived in the villages at any point in time (Gregg et al. 1983:41).

AD 1780-1850

This period is marked by increasing hostility between Indians. The encroachment by white populations further increased the tensions. In the late 1700s, the Mandan, Hidatsa and Arikara still held traditional territories along the Missouri in the Dakotas (Figure C.3). Smallpox swept through these populations in 1780 to 1781. The Arikara were decimated and the Mandans lost two-thirds of their population. The Hidatsa, however, fared somewhat better (Ahler et al. 1991:57). Disease and continued harassment by the Sioux forced most of the Mandan to abandon their traditional territory around the Heart River and to move north to join the Hidatsa around the Knife River.

Hidatsa-Mandan villages were formed in the 1790s. The Hidatsa-proper moved into temporary camps near the Mandan in the Heart River area and then moved upstream

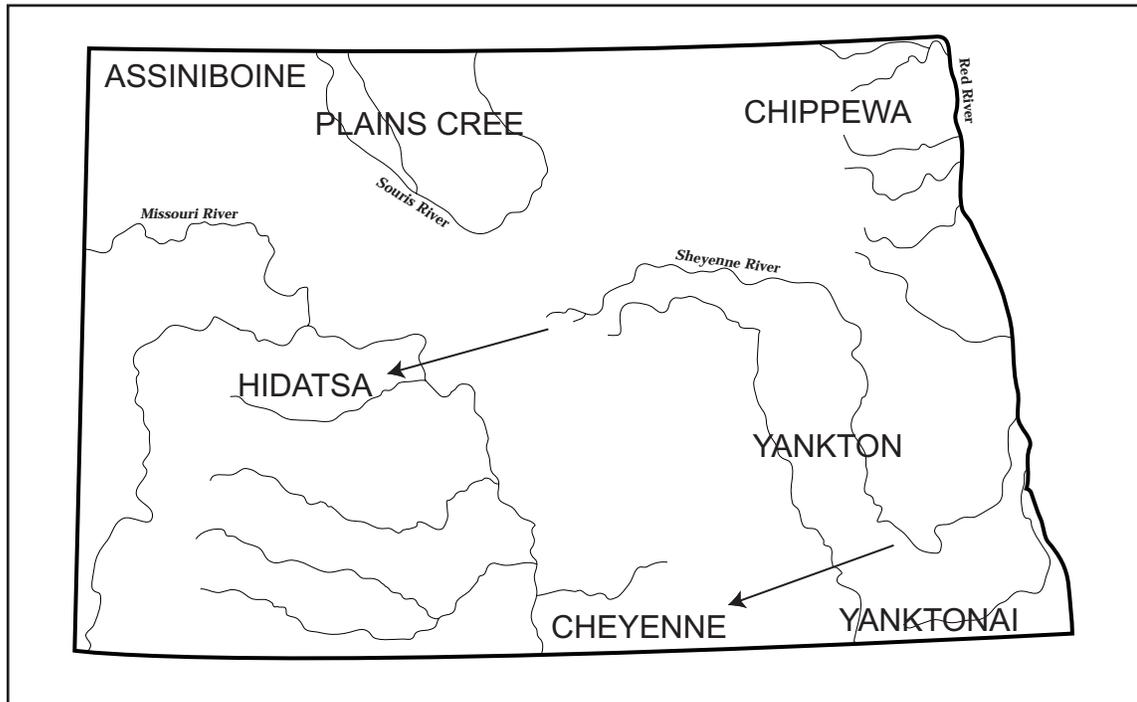
North of the Knife River with the agreement of the Mandan and other Hidatsa (Gregg et al. 1983:56). The Arikara abandoned their villages in South Dakota and moved upriver to

join other Arikara at Greenshield (32OL17). They stayed only briefly due to conflict with Mandan and Hidatsa, and then moved back downriver and formed three villages near Mobridge, South Dakota. Consolidation of the three tribes continued through the 1800s, forced by continuing Sioux raids and population losses caused by more smallpox epidemics (e.g., 1837). In 1837 to 1838, the Arikara moved into the former Mandan village at Fort Clark (32ME2). By 1845, the Mandans and Hidatsa ceased to exist as independent tribal units. Together they formed a new settlement, Like-A-Fishhook Village. By 1862, all of the remaining Mandans and the Arikara had joined this community (Ahler et al. 1991; S. Deaver 1986).

Beisterfeldt, the Cheyenne earthlodge village on the Sheyenne River, was destroyed by invading Chippewas ca. 1790. Consequently, some groups of Cheyenne moved to the vicinity of Fort Yates. The Sutaio were absorbed into the Cheyenne. The combined Cheyenne-Sutaio then split into two groups, the Northern and Southern Cheyenne (Wood and Liberty 1980:286).

In the 1800s, the Plains-Cree and Assiniboine hunted in the valley of the Souris River in the winter and near the Turtle Mountains in the summer. However, they could not cross the Coteau as it continued to be blocked by hostile Sioux (Ewers 1974:35). The Assiniboine held the confluence of the Missouri and the Yellowstone (Hewes 1961:52). The Chippewa-Cree crossed the eastern boundary of North Da-

Figure C.3
North Dakota ca. AD 1780



kota (Ewers 1974:35) and continued moving westward, spreading to central Montana by 1850. Northern North Dakota was controlled by the Chippewa-Cree and southern North Dakota was dominated by the Yankton.

INDIAN RESERVATIONS (ORIGINAL TEXT USDI BLM)

Before 1850 lands in the West including North Dakota were set-aside as Indian Country for the Plains and removed eastern tribes. Migration and immigration of white settlers and inherent problems lead to the Treaties of Fort Laramie of 1868 and the Treaty of Medicine Lodge of 1867, which established large reservations for the tribes. The Great Sioux Nation after the Plains conflicts of the 1860-1870s was divided into smaller reservations in North and South Dakota. After 1871 Congress made no more treaties with American Indians. Congress passed the General Allotment Act in 1887 providing for the allotment of lands to individual Indians. The immediate effect of the act was to again reduce the size of Indian reservations as lands were sold off. The Indian Reorganization Act of 1934 was passed to halt the sale of tribal lands, ending the allotment policy. The Act also allowed the tribes to incorporate and establish tribal constitutions and constitutional forms of government.

Forced assimilation by relocation marked the federal policy of the 1950s. The government provided financial assistance

to relocate in urban areas. House Concurrent Resolution 108 was to terminate “from Federal supervision and control and from all disabilities and limitations applicable to Indians”. One of the tribes was the Turtle Mountain Chippewa. Under Termination policy all the trust lands would be sold and proceeds divided among the people. No reservation and no further governmental services would be provided. At the end of the 1960s the policy of Termination was changed to the comprehensive policy of Self-Determination.

In 1975 the Indian Self-Determination and Education Assistance Act formally changed the policy of termination. The act among other changes provided that tribal governments could contract with the Bureau of Indian Affairs to administer their own programs. Today tribes constantly face lack of sufficient funds to support their programs and are faced with Federal-funding cuts.

There are four Indian reservations within North Dakota: Fort Berthold, Standing Rock, Fort Totten, and Turtle Mountain. The Sisseton Reservation, which extends into North Dakota, has its administrative center in South Dakota and is considered a South Dakota reservation (Schneider 1994).

The Fort Berthold Reservation is home to the Three Affiliated Tribes (Mandan, Hidatsa, and Arikara). The reservation is located just north of the proposed mine area and presently covers some 981,000 acres (Fort Berthold Library Web Site 2003). Originally extending west of the Missouri River

into Montana. In 1870 and 1880 Executive Orders reduced the reservation to less than 3 million acres. In 1894 allotment of the reservation began and in 1910 an agreement further reduced the size of the reservation to some 643,000 acres. The construction of the Garrison Dam in 1954 further reduced the land base by another 150,000 acres and disrupted the lifeways of the people (Ahler et al. 1991). In 1970 a section of land was returned increasing the land base to its current acres.

Standing Rock Reservation, home of the Standing Rock Sioux Tribe straddles the North Dakota-South Dakota border. Originally Standing Rock was part of the Great Sioux Nation as established by the Treaty of Fort Laramie in 1851. It included all of South Dakota west of the Missouri, part of western North Dakota, eastern Montana and Wyoming and western Nebraska. In 1868 another Fort Laramie Treaty reduced the Nation to South Dakota west of the Missouri River. From 1882 to 1889 a series of treaties were made with individual Sioux tribes and bands. The Act of 1889 provided for over two million acres for the Standing Rock Reservation. Most of the reservations inhabitants were members of the Hunkpapa band although descendants of the Oglala, Yanktonai, Blackfoot Sioux, and others lived there (Schneider 1994; American Indian Relief Council 2003 web site). In 1906 allotments began and in 1908 a million acres in the western part of the reservation were opened to white settlers. In 1948 the reservation contained over one million acres of land. The Oahe Reservoir took 50,000 acres of bottomland. In 1973 the reservation holdings had shrunk to 844,000 acres.

Turtle Mountain Reservation is home of the Turtle Mountain Band of Chippewa. Located just below the Canadian border, the reservation was the last to be established in North Dakota. The establishment of the Dakota Territory recognized the claims of Chippewa and Metis to 10 million acres in northeastern North Dakota. The Metis are recognized as a distinct ethnic group and their affiliation with the Chippewa has permitted them to be classified as Indians. Although the government originally agreed to this claim, in 1882 the land was opened to settlement. Also in 1882 an Executive Order set aside a tract of land of 72,000 acres for the use of the Turtle Mountain Chippewa. In 1884 the land base was reduced to two townships. The sum of 1 million dollars was paid for reparations of lands opened to settlement (Gourneau 1993). About this time Metis from Canada fled from the Riel Rebellion and those who could establish claim to tribal ancestry would be able to settle on the reservation. The reservation was too small to contain all that wanted to settle. Many had to settle far from the reservation. In 1906 part of the Spirit Lake Sioux Reservation was allotted to the Turtle Mountain people. Today the reservation consists of two townships, approximately 34,000 acres (Schneider 1994). The Tribe and its members also hold 6,700 acres in trust at

Trenton, Montana; 72,000 acres on and adjacent to the reservation and other individual allotments (North Dakota Office of Indian Education The History & Culture of the Turtle Mountain Band of Chippewa Bismarck ND; FEMA Region VIII Web 2003):

Fort Totten Reservation is home to the Spirit Lake Nation. It is the eastern most reservation in North Dakota. Established in 1867 by treaty with the Cuthead band of Yanktonai and the Wahpeton and Sisseton Sioux of Minnesota was eight million acres of the Dakota Territory (Schneider 1994; spiritlekenation.com 2003). In 1872 the Sisseton-Wahpeton agree to cede the claimed land between the two modern reservations (Sisseton-Wahpeton or Lake Traverse Reservation straddles North Dakota and South Dakota). By 1883 white homesteaders had settled on the reservation. The reservation was reduced to 166,400 acres the Tribe was reimbursed for its lands. In 1887, 100,000 acres were open for sale to non-Indians. The present reservation is 245,000 acres with less than 33 percent owned by the Spirit Lake Sioux (Spirit Lake Nation Fish & Wildlife Dept Web 2003).

In addition to the four North Dakota Reservations it is important to recognize the Fort Peck Reservation, home to Assiniboine and Sioux. The Assiniboine were veteran middlemen in the fur trades. The French Canadian explorer, La Verendreye, accompanied a regular annual trade expedition by eastern Assiniboines to the Mandan villages in 1731-38 (Institute of American Indian Studies 1997 University of South Dakota Web). The Yantonais (Sioux) have claims to be original inhabitants of North Dakota (Schneider 1994).

The Fort Peck Reservation is home to two separate Indian nations, each composed of numerous bands and divisions. The Sioux divisions of Sisseton/Wahpetons, the Yantonais, and the Teton Hunkpapa are all represented. The Assiniboine bands of Canoe Paddler and Red Bottom are also represented (Montana-Wyoming Tribal Leaders Council, 2003). Today's reservation is located in the extreme northeast corner of Montana, on the north side of the Missouri River and covers over 2 million acres (Indian Health Service 2003). In 1851 at Fort Laramie the Assiniboine claimed land south of the Missouri River (south of the present day reservation). The Great Sioux Nation territory comprised most of the Dakota Territory. In 1868 another treaty created a reduced territory for the Sioux Nation. By 1883 the Assiniboine Tribe lost the territory of the 1851 Fort Laramie Treaty to white settlers. In 1886 Congress authorized the Commissioner of Indian Affairs to begin negotiations with the Tribes. It was at this time that the present reservation was negotiated. In 1888 the Congress of the United States ratified the agreement, concluding three years of negotiations (Indian Health Service, 2003).

EURO-AMERICAN HISTORY (1850 ONWARD) (DERIVED FROM BOUGHTON 2000)

The history of the area follows the overall pattern defined for the historical record of western North Dakota, as many of the defining themes are represented in the study area. Five overall themes characterize this area; 1) the exploration era with the initial arrival of Europeans in the area in the 1700s; 2) the expansion era with the ever-growing presence of trappers, buffalo hunters and military troops between 1800 and 1850; 3) the transportation era with the introduction of the steamboat and the expansion of the railroad in the mid-1800s, 4) the homestead era, starting in the 1880s and expanding after World War I and characterized by the arrival of a large contingent of German-Russian emigrants and finally 5) the coal mining era with the introduction and development of the mining industry.

The Exploration Era

Pierre de Varennes, Sieur de la Verendrye was interested in establishing a fur trade monopoly for the French Crown. In 1731, de la Verendrye, with the aid of the French Crown, made a first unsuccessful attempt to travel westward across the Missouri. His second attempt in 1738 led him to Mandan country along the Missouri River.

The next fifty years would see few Europeans travel through the area. A small number were trappers attempting to establish fur-trading routes through Indian country. The introduction of a fur trade economy would lead to an ever increasing economic dependency on European goods and re-define trading networks between the various Native groups that had existed prior to the arrival of Euro-Americans. In 1793, the Missouri Fur Company was formed and a trading post was built near Fort Randall, South Dakota.

Lewis and Clark's famed expedition throughout the heartland of the continent constitutes the most noticeable presence of Euro-Americans in the general area at the beginning of the nineteenth century. Departing from St. Louis, the expedition made its way to the Missouri River in the fall of 1804, through Mandan country. The exploration party then continued on following the northwestern route of the Missouri River probably passing north of Mercer County on what is now Lake Sakakawea in the spring of 1805.

The Expansion Era

With the increasing number of trappers in the area, the presence of Europeans was felt by the local Native groups, which were weary of the increase in number of strangers in their territory. The trappers were relatively friendly and were eager to exchange goods, but mistrust on both sides was ap-

parent. Also, the frequent encounters between the growing number of Europeans and the local occupants combined with the migration of settlers from the east, led to a stronger military presence in the area. Between 1805 and 1860, trading companies built a number of trading posts that would serve as outposts for the US military along the Missouri. Fort Mandan, an original outpost of the Lewis and Clark expedition, served to establish territorial authority over the area. The construction of Fort Clark at the Knife River villages, located south of the confluence of the Knife River and Missouri River, was related to the establishment of fur trading activities in the area. Fort Berthold was established to provide protection and assistance to Mandan, Hidatsa and Arikara populations that were displaced because of epidemics. Fort Stevenson, located on the north bank of the Missouri was built for military purposes to control hostilities between Native populations. The fort also served as protection for travelers and mail carriers.

The Transportation Era

The establishment of forts along the Missouri brought an additional economic boom in the way of transportation. In 1832, the Yellowstone was the first steamboat to navigate along the upper Missouri and to reach Fort Union. Built by the American Fur Company, the Yellowstone was used to transport goods in and out of the region. An increasing number of other steamboats would be seen in the years thereafter along the Missouri. As they required fuel, wood yards were established along the river. The advent of these wood yards led to the initial occupation of the area by Euro-American settlers who were mainly employed as wood yard operators.

In 1864, the United States Congress granted lands to aid in the construction of a railroad from Lake Superior to Puget Sound. Congress chartered the Northern Pacific and provided a fifty million acre land grant for its construction. While an economic failure, the railroad itself allowed settlers into the region to acquire much desired land and eventually contributed to the influx of emigrants to the area. The distribution of promotional materials in German eventually found their way to German colonies in Russia.

The Homestead Era

The passing of the Homestead Act by the US Congress in 1862, which allocated 160 acres of public land to settlers prepared to farm for a minimum period of five years, served in enticing would-be farmers to cultivate the grasslands. Homestead Patents were the major land patenting process, second only to the Railroad Patents.

This period would see one of the most important movements of population in the state's history with the immigration of German-Russians into the area. Mercer County lies in an

area identified as North Dakota's "German-Russian Triangle." This region of extensive German-Russian settlement is located in the south-central and north central portions of the state. The triangle is a "truly unique ethnic enclave" for it is the largest concentration of German-Russians in the country, if not the world (Kloberdanz 1988:137).

Prior to the arrival of the German-Russians, the initial settlement of the county was slow and most settlers were from the eastern United States, although a small number came from Sweden, Norway, and Germany. The population of Mercer County was less than 300 the year before the arrival of the first German-Russian settlers. The German-Russian movement into Mercer County began in 1886, when a train of 30 wagons left South Dakota and ferried across the Missouri at Bismarck, stopping in Hebron to collect buffalo bones to replenish their supplies.

Over the next three decades, thousands of Germans from Russia came to North Dakota and many made their homes in Mercer County. In the 1900 census, the foreign-born element in the county made up 47 percent of the population. The German-Russians accounted for approximately 48 percent of this total ethnic population, which also included Germans, Norwegians and Swedes. The trend continued and the number of German-Russians far exceeded any other ethnic group (US Department of Commerce n.d.). Indeed, by 1920 it was estimated that up to 68,000 German-Russians were living in North Dakota and that 52 percent of the population living in Mercer County was of German-Russian origin (Sallet 1974).

By 1916, all the lands in the study area had been settled. The transfer of railroad lands to individual settlers appears to have been completed by the same time. Beginning in 1916, North Dakota had a poor wheat crop for three consecutive years and the western two-thirds of the state had below average precipitation from 1917 to 1920. Life on the Plains was particularly harsh and in the 1920s, many farmers lost their lands and abandoned the area because of difficult and austere living conditions. German-Russian immigrants, however, persevered. The majority held their land and maintained their distinct ethnic heritage into the 1940s (HASI 1983; Robinson 1966).

The Mining Era

The strong agricultural emphasis on the local economy of Mercer County was paralleled with the exploitation of the large deposits of lignite found in the subsurface deposits of the county. The first recorded use of coal in North Dakota is attributed to the Lewis and Clark Expedition when the blacksmith of the expedition operated his forge with lignite during the winter stay at Fort Mandan in 1804-1805. As the expedition continued up the Missouri River the following spring, coal was observed along the bluffs.

Beginning in the 1830s, steamboats on the Missouri River attempted to use coal as fuel but most attempts failed (State Historical Society of North Dakota-Archaeology and Historic Preservation n.d.). Coal was not used successfully until the 1870s when Fort Stevenson on the Missouri obtained stoves able to burn coal (Oihus 1978).

South of the Missouri and away from rivers or creeks, wood was limited and the primary source of fuel was lignite coal, which underlay most of the region. Created as a county in 1883, Mercer County had a population of 254 in 1885 (US Department of Commerce n.d.). The majority were farmers and during settlement "... fuel was a greater problem than food. . ." (Robinson 1966:160). Two types of coal mines, farmer mines and wagon mines, were common in the early settlement years of this lignite rich area.

Farmer mines generally consisted of an individual farmer collecting coal by hand or horse on his land for his own use or sharing it with his neighbors. Wagon mines were expanded commercial farmer mines and were usually stripping operations, using horse-drawn pull plows and scrapers. The owner of a wagon mine would provide coal for his neighbors or haul the coal into the nearest town to sell it commercially (Dahlberg et al. 1984; Oihus 1978). No farmer or wagon mines were identified within the inventoried area, but they probably existed during early settlement in the late 1880s (Spath et al. 1991a).

The earliest known commercial coal mine in Mercer County was developed in 1884 near the present-day town of Hazen, when local residents extracted exposed lignite from the bluffs located along the Missouri (Oihus 1978). In the first decade of the twentieth century, underground mines became the principal method of extraction for both larger-scale mines and the smaller commercial operations, with mechanized equipment for underground extraction increasing production.

In 1907, George Schmidt opened an underground mine north of the town of Beulah. (Oihus 1978). The Schmidt coal mine was the largest and best equipped mine in the county for around 10 years. In 1915, Schmidt opened another mine, called the Standard Coal Mine, which was successful for only two years when it flooded (HASI 1983).

Coal mining activity increased in Mercer County, stimulated by the arrival of the Northern Pacific Railway in 1914. The introduction of mechanical equipment for strip mining methods in 1917 revolutionized the technology of coal extraction. Earth-moving equipment such as the steam shovel, allowed for larger-scale, less labor-intensive operations. During the 1920s and 1930s, coal production increased. Both non-mechanized and mechanized underground and strip mines remained viable methods, although strip mining predominated. Mining continued through the depression years

but with reduced production (Dahlberg et al. 1984; Oihus 1978).

By 1920, five commercial coal mines had commenced operations in the Beulah region including Schmidt mines, the Kesler Coal Mine, and the Dilger Coal Mine. The most important coal mining development was the Beulah Coal and Mining Company. By 1920 this underground mine, now called the Beulah Coal Company, was producing over 76,000 tons of lignite. Reorganized in 1922 as the Knife River Coal Mining Company, the operation developed into the largest, most technologically advanced underground mine in the United States. The mine was eventually sold to the United Public Service Company of Chicago in 1928, and then became part of the Montana-Dakota Utilities Company of Bismarck. This mine was abandoned in 1953 (Dahlberg et al. 1984; Oihus 1978).

The 1920s also saw continuing development of commercial strip mining in Mercer County. The most notable strip mine operation was the Zap Colliery Mine that operated from 1922 to 1950. The Zap Mine used mechanized equipment and established a mining camp. The Zap Mine was the largest strip operation in western North Dakota by 1929 (Oihus 1978). Other mines in the immediate area included the Kamins Coal Company Mine, the Lucky Stripe Mine, and a number of wagon mines operated by local farmers.

In the 1930s, many farmers reacted to the severity of the economic depression by mining their own coal (Robinson 1966). Beginning in 1940, the number of active mines began to decline, marking a turning point in the history of the coal industry. Consumption of natural gas and fuel oil surpassed coal for domestic use. Small commercial mines could not compete and government regulations made operations impossible. In the 1940s, the transformation of coal utilization into electric power production began. By 1948, most coal mined in North Dakota was being used as fuel for generating electricity (Oihus 1978; Dahlberg et al. 1984).

The Dakota Star Mine in Mercer County was a Truax-Traer company operation. The Truax-Traer Company, one of the major strip mining companies in North Dakota, began to develop this large, mechanized strip mine in 1944-1945. Between 1947 and 1951, the mine was the state's leading producer of lignite. It served both a local, domestic market as well as several small power plants in the region (Spath et al. 1991b). A company-owned camp was established immediately south of the mine headquarters at the Dakota Star Mine.

The Zap Colliery Mine in Mercer County operated from 1922 to 1950 with a well-established mining camp. The Dakota Star mining camp of Truax (32ME1230) was similar to the Zap mining camp. The mining camp at Truax-Traer's Dakota Star Mine was occupied until the mine closed in 1965.

The Coteau Properties Company, a subsidiary of the North American Coal Corporation, is currently engaged in the mining of coal used by electric utilities for power generation and by a coal gasification facility. Coteau's Freedom Mine in Beulah, North Dakota, began mining in 1983. Freedom Mine delivers over 16 million tons of coal per year, making it the largest lignite mine in the United States in deliveries. The operation utilizes two Bucyrus-Erie 2570 draglines for overburden removal of about 600 to 900 acres a year. That production supplies fuel to power plants providing electricity to more than 2 million homes and businesses in the Upper Midwest. It also feeds the Great Plains Synfuels Plant that converts lignite into synthetic natural gas and valuable byproducts.

In the 1970s, a consortium of energy companies obtained federally guaranteed loans to finance the construction of the Great Plains Synfuels Plant. Operations began in 1984. The consortium abandoned the plant in 1985, and DOE assumed ownership in 1986. In 1988, DOE sold the plant to Dakota Gasification Company, a wholly owned subsidiary of Basin Electric Power Cooperative.

Operations at the facility produce a synthetic natural gas from lignite coal. The coal gasification process involves the breaking down of the molecular structure of coal to produce carbon monoxide and hydrogen that are in turn combined to produce methane.

The facility is co-located with the Antelope Valley Station, a coal-fired steam electric generating plant also owned and operated by Basin Electric Power Cooperative and the Freedom Mine, operated by Coteau Properties Company.

Since coal removal began at the Freedom Mine in 1983, Coteau's miners and equipment have produced more than 200 million tons of lignite. Each year about 600 to 900 acres are disturbed for mining and an equal amount is reclaimed. Most of the soil that is stripped ahead of mining is directly spread on graded spoils immediately behind active pits.

